

To: McClain-Vanderpool, Lisa[Mcclain-Vanderpool.Lisa@epa.gov]
From: McClain-Vanderpool, Lisa
Sent: Sat 8/8/2015 1:14:31 PM
Subject: Media Conference call today: [Nonresponsive Conference Code] at 3:00pm Mountain Time Also some updates

Please call in at 3:00 Mountain time today for Gold King Mine update: it's the same call-in number and code as yesterday.

Here are a couple of updates:

Sampling Process

Sampling crews have been and will be sampling locations from Silverton (and above Silverton, near the Mine), all the way to the Colorado border, a distance of approximately 60 miles. Crews will also sample in New Mexico. The distance between sampling locations involves driving time, especially where sampling locations on the river are in remote, difficult to access locations.

Samples are taken from the river using a hand pump or peristaltic pump. Samples must be filtered. Once at the location, collecting the sample may take ½ hour or more.

The standard procedure for analyzing for metals requires a 16 hour hold time with the preservative. EPA will be modifying this procedure to reduce or eliminate this hold time.

The samples must then be transported to a laboratory, either hand-delivered or shipped. The turnaround time for laboratories is different depending on the number of personnel available and number of instruments available. Small labs may only be able to guarantee a 24-48 hour turnaround time. Medium and large capacity labs will be able to provide much faster turnaround times and sometimes even same day results. EPA is currently using a local laboratory in Durango; which has been extremely cooperative and plans to work through the weekend for this project; however, it is a small capacity lab and will likely not be able to process the high volume of samples anticipated to be taken. EPA is exploring options for procuring another lab, which will involve driving or shipping samples for delivery.

The first round of 19 samples collected the evening of the spill and morning following were

immediately driven to the EPA laboratory in Golden and prepped for analysis. Those lab results should be available shortly.

The following is a summary of the evaluation of pH data collected as of August 6, 2015. Additional information related to additional data, including metals, is being developed and will be provided in a separate statement.

pH (a measure of acidity) was measured at a number of locations along Cement Creek and the Animas River to Durango and beyond to Farmington, New Mexico. Except for locations within Cement Creek, generally, pH levels were measured before the arrival of the contaminant plume and found to range between 6.5 and 7.6. When the contaminated water from the mine release passed a sampling location, the pH lowered (indicating more acid) to approximately 4.8 (below Silverton). A pH of 4.5 is consistent with the pH of a liquid like black coffee. Later, however, in locations down river, the pH began to return to pre-incident levels. Water acidity levels in the Animas above Cement Creek have been consistent over the past two days at approximately 6.4 to 6.8. For reference, the pH of saliva is roughly 6 and the pH of pure water is 7. The acidity level in Cement Creek has remained low at 3.74 since the mine release. Tomato juice and apples also have a pH of approximately 3.74. While this reference information is relevant to skin exposure, the evaluation of impacts of these pH levels on fish and other aquatic life is ongoing.

pH of Common Substances

| ACIDIC | | | | | | | NEUTRAL | ALKALINE OR BASIC | | | | | | | | | | | | | |
|--------------|-----------------------------|----------------------|----------------|-----------------------------|-------------------------|--------------------|----------------------|----------------------------|------------------------------|---------------------|---------------------|------------------------|-----------------------------|-----------------------------|-----------------------|----------------------------------|--------------------------------|-------------|-----------------------------------|----------------------|------------------------------------|
| 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | | | | | | | |
| Battery Acid | Stomach Acid (Hydrochloric) | Lemon Juice, Vinegar | Coke and Pepsi | Grapefruit and Orange Juice | Apples, Dr. Pepper Soda | Tomato Juice, Beer | Acid Rain, 7-UP Soda | Black Coffee, Pepto Bismol | Healthy Skin, Hair and Nails | Urine, Saliva, Milk | "Pure" Water, Blood | Shampoos (7.0 to 10.0) | Baking Soda, Seawater, Eggs | Perm Solutions (8.5 to 9.5) | Toothpaste, Hand Soap | Milk of Magnesia, Mild Detergent | Household Ammonia and Cleaners | Soapy Water | Hair Straighteners (11.5 to 14.0) | Bleach, Oven Cleaner | Liquid Drain Cleaner, Caustic Soda |

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